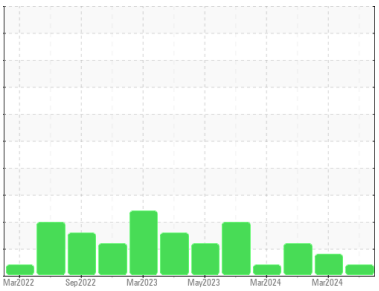
# OIL ANALYSIS REPORT

Sample Rating Trend




**VIS DEBRIS**

Machine Id
## C-2702A EAST (S/N MK6C/WRV1321132/58/743)
Component
**Refrigeration Compressor**
Fluid
**USPI ALT-68 SC (210 GAL)**

## DIAGNOSIS

**Recommendation**
We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

**Wear**
All component wear rates are normal.

**Contamination**
Moderate concentration of visible dirt/debris present in the oil.

**Fluid Condition**
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **USP0013440** | USP0008217 | USP247266 |
| Sample Date | | Client Info | | **03 Jun 2024** | 31 Mar 2024 | 29 Mar 2024 |
| Machine Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **N/A** | N/A | N/A |
| Sample Status | | | | **ABNORMAL** | ABNORMAL | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >8 | **1** | <1 | <1 |
| Chromium | ppm | ASTM D5185m | >2 | **<1** | <1 | <1 |
| Nickel | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >3 | **0** | 0 | 0 |
| Lead | ppm | ASTM D5185m | >2 | **0** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >8 | **<1** | 0 | 0 |
| Tin | ppm | ASTM D5185m | >4 | **<1** | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **<1** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Barium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **0** | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | **0** | <1 | <1 |
| Phosphorus | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Zinc | ppm | ASTM D5185m | | **<1** | 2 | 2 |
| Sulfur | ppm | ASTM D5185m | 50 | **0** | 29 | 16 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >15 | **3** | 1 | <1 |
| Sodium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | **<1** | 0 | 0 |
| Water | % | ASTM D6304 | >0.01 | **0.003** | 0.003 | 0.003 |
| ppm Water | ppm | ASTM D6304 | >100 | **32** | 35 | 34 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >10000 | **---** | ▲ 28818 | ▲ 51723 |
| Particles >6µm | | ASTM D7647 | >2500 | **---** | 1832 | ▲ 7900 |
| Particles >14µm | | ASTM D7647 | >320 | **---** | 51 | 161 |
| Particles >21µm | | ASTM D7647 | >80 | **---** | 9 | 20 |
| Particles >38µm | | ASTM D7647 | >20 | **---** | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >4 | **---** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | **---** | ▲ 22/18/13 | ▲ 23/20/15 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D974 | 0.005 | **0.014** | 0.014 | 0.014 |

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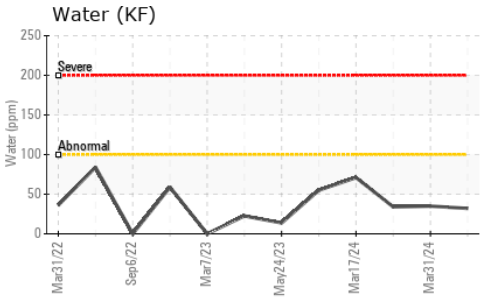
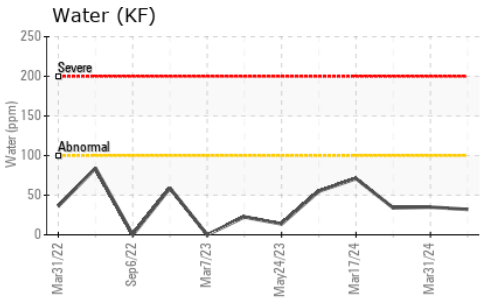
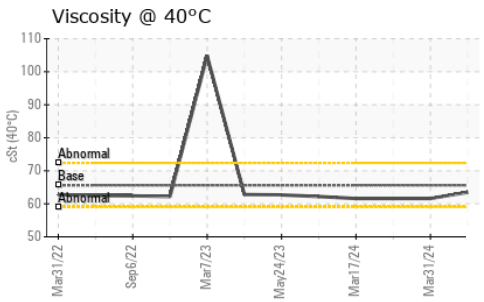


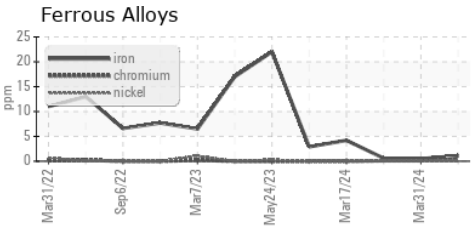



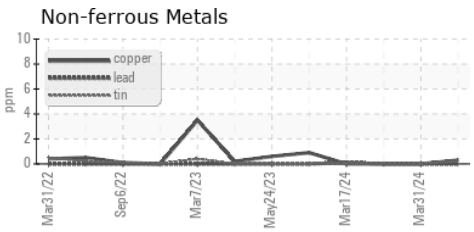

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | ▲ **MODER** | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Appearance | scalar | *Visual | NORML | **NORML** | NORML | NORML |
| Odor | scalar | *Visual | NORML | **NORML** | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.01 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

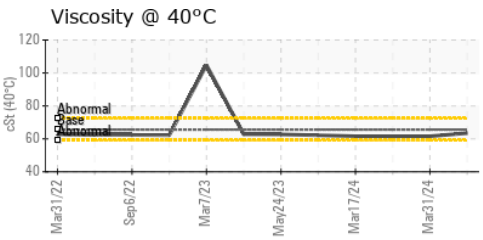
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 65.6 | **63.5** | 61.6 | 61.6 |

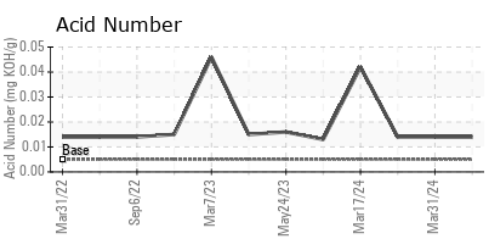
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : USP0013440
**Lab Number** : 06206595
**Unique Number** : 11074056
**Test Package** : IND 2

**Received** : 11 Jun 2024
**Tested** : 14 Jun 2024
**Diagnosed** : 14 Jun 2024 - Doug Bogart

**REC SILICON MATERIALS**
119140 RICK JONES WAY
SILVER BOW, MT
US 59750
Contact: Service Manager
T:
F:

*To discuss this sample report, contact Customer Service at 1-800-237-1369.*
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
*Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)*